

**4<sup>TH</sup> BRIGADE, 10<sup>TH</sup> INFANTRY DIVISION  
IRAQI ARMY HEADQUARTERS BARRACKS  
MISSAN PROVINCE, IRAQ**

**SUSTAINMENT ASSESSMENT**

**SIGIR PA-08-164  
JULY 20, 2009**

<b>Report Documentation Page</b>			Form Approved OMB No. 0704-0188	
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1. REPORT DATE <b>20 JUL 2009</b>	2. REPORT TYPE	3. DATES COVERED <b>00-00-2009 to 00-00-2009</b>		
4. TITLE AND SUBTITLE <b>4th Brigade, 10th Infantry Division Iraqi Army Headquarters Barracks Missan Province, Iraq. Sustainment Assessment</b>			5a. CONTRACT NUMBER	
			5b. GRANT NUMBER	
			5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)			5d. PROJECT NUMBER	
			5e. TASK NUMBER	
			5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) <b>Special Inspector General for Iraq Reconstruction,400 Army Navy Drive,Arlington,VA,22202-4704</b>			8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)	
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT <b>Approved for public release; distribution unlimited</b>				
13. SUPPLEMENTARY NOTES				
14. ABSTRACT				
15. SUBJECT TERMS				
16. SECURITY CLASSIFICATION OF:  a. REPORT      b. ABSTRACT      c. THIS PAGE <b>unclassified</b> <b>unclassified</b> <b>unclassified</b>			17. LIMITATION OF ABSTRACT <b>Same as Report (SAR)</b>	18. NUMBER OF PAGES <b>31</b>
				19a. NAME OF RESPONSIBLE PERSON



# SIGIR

Special Inspector General for Iraq Reconstruction

## Summary of Report: PA-08-164

### Why SIGIR Did This Study

SIGIR is charged to conduct assessments of Iraq reconstruction projects funded with amounts appropriated or made available by the U.S. Congress. SIGIR assessed this Iraq Relief and Reconstruction Fund project to provide real-time information to interested parties to enable appropriate action, when warranted.

The objective of this project assessment was to determine whether the project is operating at the capacity stated in the original contract. To accomplish the objective, SIGIR determined whether the project was at full capability or capacity when accepted by the U.S. government, when transferred to Iraqi operators, and during the site inspection.

### What SIGIR Recommends

SIGIR recommends that the Gulf Region Division (GRD) locate the detailed construction drawings and design calculations for the new battalion headquarters building and four new toilets and baths and maintain them in the project file records.

GRD concurred with the recommendation and explained that Gulf Region South (GRS) had documentation confirming that as-built drawings had been provided to the Government of Iraq at turnover of the project on 8 January 2008. Subsequent discussions with GRD disclosed that in September 2008, 227 boxes of records from GRS were delivered to the Transatlantic Program Center of the U.S. Army Corps of Engineers in Winchester, Virginia. The 227 boxes included 19 boxes of oversized drawings. The Transatlantic Program Center is checking those boxes for the drawings.

July 20, 2009

## 4<sup>th</sup> Brigade, 10<sup>th</sup> Infantry Division Iraqi Army Headquarters Barracks

### What SIGIR Found

On 8 January 2009, SIGIR performed an on-site assessment of the 4th Brigade, 10<sup>th</sup> Infantry Division Iraqi Army Headquarters Barracks in Missan province, Iraq. The objective of this \$1.2 million contract was to construct new buildings and renovate existing buildings for the Iraqi 4<sup>th</sup> Brigade, 10<sup>th</sup> Infantry Division—to include an office building, toilets and baths, and roadways—and to install a generator, fuel tanks, and other equipment.

SIGIR reviewed available government furnished drawings and found that although they were adequate to outline the scope of the project for the contractor, they were not adequately detailed to properly construct the facility. SIGIR requested detailed construction drawings or design calculations for the project, but neither GRD nor GRS could produce the design drawings or calculations.

On 8 January 2008, the project was officially turned over to the Government of Iraq. The contractor was required to complete the following six items—connect cables with the existing grid; repair ceramic tiles in the lavatories; repair miscellaneous plumbing fixtures; repaint steel doors; repair electrical fixtures; and connect water pipes after connecting to grid. SIGIR confirmed that the contractor had corrected the outstanding deficiencies.

SIGIR did not observe any signs of structural failure or distress; the floors appeared even and level, with no apparent signs of settlement or displacement. However, the flooring tile in the entrance room of the battalion headquarters building had settled and showed signs of cracking. Although the electrical system appeared to be well constructed, the fixtures were of poor quality, and the electrical connections were unsafe. Also, the ceramic tiles in the kitchen and lavatories showed evidence of damage, and some of the faucets were missing.

SIGIR concluded that, aside from minor construction defects, safety concerns, and damage from improper use, the construction was adequate and was turned over to the Government of Iraq in a sustainable condition.





## SPECIAL INSPECTOR GENERAL FOR IRAQ RECONSTRUCTION

July 20, 2009

MEMORANDUM FOR COMMANDING GENERAL, MULTI-NATIONAL FORCE-IRAQ  
COMMANDING GENERAL, JOINT CONTRACTING COMMAND-  
IRAQ/AFGHANISTAN  
COMMANDING GENERAL, GULF REGION DIVISION, U.S.  
ARMY CORPS OF ENGINEERS  
DIRECTOR, IRAQ TRANSITION ASSISTANCE OFFICE

SUBJECT: Report on Sustainment Assessment of the 4th Brigade, 10th Infantry Division Iraqi Army Headquarters Barracks, Missan Province, Iraq (SIGIR Project Number PA-08-164)

We are providing this report for your information and use. It addresses the current status of the 4th Brigade, 10th Infantry Division Iraqi Army Headquarters Barracks, Missan province, Iraq. The assessment was made to determine whether the project was operating at the capacity stated in the original contract.

Comments on a draft of this report from the Gulf Region Division of the U.S. Army Corps of Engineers addressed our recommendation and provided additional clarifying information. The actions taken and planned are responsive and address the issues identified. As a result, comments to this final report are not required.

We appreciate the courtesies extended to our staff by the Gulf Region Division and the Gulf Region District South of the U.S. Army Corps of Engineers. If you have any questions please contact Mr. Brian Flynn at [brian.flynn@sigir.mil](mailto:brian.flynn@sigir.mil) or at 240-553-0581, extension 2485. For public queries concerning this report, please contact SIGIR Public Affairs at [publicaffairs@sigir.mil](mailto:publicaffairs@sigir.mil) or at 703-428-1100.



Stuart W. Bowen, Jr.  
Inspector General

# Special Inspector General for Iraq Reconstruction

SIGIR-PA-08-164

July 20, 2009

## 4<sup>th</sup> Brigade, 10<sup>th</sup> Infantry Division Iraqi Army Headquarters Barracks Missan province, Iraq

### Synopsis

**Introduction.** The Office of the Special Inspector General for Iraq Reconstruction (SIGIR) is assessing projects funded under the Iraq Relief and Reconstruction Fund to provide real-time information on relief and reconstruction projects to interested parties to enable appropriate action, when warranted.

**Project Assessment Objective.** The objective of this project assessment was to determine whether the project is operating at the capacity stated in the original contract. To accomplish the objective, SIGIR determined whether the project was at full capability or capacity when accepted by the U.S. government, when transferred to Iraqi operators, and when SIGIR inspected the site on 8 January 2009. SIGIR conducted this limited scope assessment in accordance with the Quality Standards for Inspections issued by the Council of the Inspectors General on Integrity and Efficiency. The assessment team comprised an engineer/inspector and two auditors/inspectors.

**Project Objective.** The objective of the project was to construct new buildings and renovate existing buildings for the Iraqi 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division.<sup>1</sup> The \$1.2 million contract required the contractor to construct and renovate several buildings and facilities—including an office building, toilets and baths, and roadways—and to install a generator, fuel tanks, and other equipment.

**Conclusions.** The Statement of Work required the contractor to construct the new battalion headquarters building and four new toilet/baths, using the original plans and specifications provided by the U.S. government. SIGIR reviewed available Government Furnished Drawings and found that although they were adequate to outline the scope of the project for the contractor, they were not adequately detailed to properly construct the facility. SIGIR requested detailed construction drawings or design calculations for the project, but neither Gulf Region Division (GRD) nor Gulf Region South (GRS) could produce the design drawings or calculations. Due to the lack of available design drawings and calculations, SIGIR was unable to determine if the project was adequately designed.

According to GRS documentation,<sup>2</sup> GRS Missan Resident Office personnel conducted a final inspection on 9 February 2008; however, no final inspection report was written, and

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<sup>1</sup> The 1<sup>st</sup> Battalion 4<sup>th</sup> Brigade 10<sup>th</sup> Iraqi Division project is also referred to in various documents as the 1/4 10<sup>th</sup> ID, formerly 1/4 10th ID, Camp Sparrowhawk, 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division Iraqi Army Headquarters Barracks, and ¼ 10<sup>th</sup> BN Garrison. This SIGIR report refers to the project as the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division, except when the term is used in a verbatim quotation.

<sup>2</sup> GRS is one of three districts under the U. S. Army Corps of Engineers Gulf Region Division (GRD). GRD and its three districts provide construction management services and help the Government of Iraq maintain its construction, operation, and maintenance program of essential services and national infrastructure.

no photographs were taken to document the condition of the project. GRS closeout documentation concluded the following:

*"All work required by this contract has been accomplished in a satisfactory manner and is accepted without any noted deficiencies ...The Contractor...has completed all assigned work. All parties acknowledge that the work performed under the contractor meets the standards set forth in the contract scope of work."*

On 2 March 2008, the GRS Missan Resident Office Engineer signed this document certifying that all work was complete and that it met the standards of the contract's Statement of Work.

Project file documentation indicates that on 8 January 2008, the GRS Missan Resident Office officially turned the project over to the Ministry of Defense. The contractor, GRS Missan Resident Office, and Ministry of Defense signed a Memorandum for Record, which stated:

*"This document certifies that all work has been inspected, and is accepted as being in accordance with the contract requirements. Construction at this facility is complete and no other work is to be performed as part of this contract unless noted below."*

The notes to the Memorandum for Record stated that the contractor was required to complete these items:

- connect cables with the existing grid
- repair ceramic tiles in the lavatories
- repair miscellaneous plumbing fixtures
- repaint steel doors
- repair electrical fixtures
- connect water pipes after connecting to grid

The Memorandum for Record stated that all corrections would be completed in approximately 14 days.

On 8 January 2009, SIGIR conducted an on-site assessment and found that the buildings were occupied and the facilities were being used. Due to security conditions SIGIR performed only an expedited 45-minute on-site assessment.

SIGIR confirmed that the contractor had corrected the outstanding deficiencies. SIGIR did not observe any signs of structural failure or distress; the floors appeared even and level, with no apparent signs of settlement or displacement. However, the flooring tile in the entrance room of the battalion headquarters building had significantly settled and showed signs of cracking; this appeared to be the only major defect in the building. Although the electrical system appeared to be well-constructed, the fixtures were of poor quality and unsafe after-installation connections had been made to electrical wiring. Also, the ceramic tiles in the kitchen and lavatories showed evidence of damage, and some of the faucets were missing.

SIGIR found that personnel from the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division were taking initiative to maintain the facility by performing routine maintenance and cleaning.

SIGIR concluded that, aside from minor construction defects, safety concerns, and damage from improper use, the construction was adequate and was turned over to the Government of Iraq in a sustainable condition. At the time of the site visit, GRS

documentation showed that the project had been operational for approximately 18 months.

**Recommendation.** SIGIR recommends that the Gulf Region Division locate the detailed construction drawings and design calculations for the new battalion headquarters building and four new toilets and baths and maintain them in the project file records.

**Management Comments.** SIGIR received comments on the draft of this report from the Gulf Region Division of the U.S. Army Corps of Engineers concurring with the recommendation and explaining that GRS had documentation confirming that as-built drawings had been provided to the Government of Iraq at turnover of the project on 8 January 2008. Subsequent discussions with GRD disclosed that in September 2008, 227 boxes of records from GRS were delivered to the Transatlantic Program Center of the U.S. Army Corps of Engineers in Winchester, Virginia. The 227 boxes included 19 boxes of oversized drawings. The Transatlantic Program Center is checking those boxes for drawings.

**Evaluation of Management Comments.** SIGIR appreciates the concurrence by the U.S. Army Corps of Engineers with the draft report's recommendations. Their comments addressed our recommendations and provided additional clarifying information for this final report. As a result, no additional comments are required.

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# **Introduction**

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## **Objective of the Project Assessment**

The objective of this project assessment was to provide real-time information on relief and reconstruction projects to interested parties to enable appropriate action to be taken, when warranted. Specifically, the Special Inspector General for Iraq Reconstruction (SIGIR) determined whether the project was operating at the capacity stated in the original contract. To accomplish this, SIGIR determined if the project was at full capability or capacity when accepted by the U.S. government, when it was transferred to Iraqi operators, and when SIGIR inspected the site.

## **Pre-Site Assessment Background**

### **Contract, Costs and Payments**

On 16 November 2004, Gulf Region Division (GRD) awarded Contract W916QW-05-D-0012, an indefinite delivery/indefinite quantity contract for construction and construction-related requirements in southern Iraq. The contract was for one base year and contained three one-year options. Task Orders (TOs) were placed on an as-needed basis on the contract. On 11 February 2005, TO 0005 was awarded for \$6,563,690 to a local contractor. TO 0005 was a firm-fixed-price contract to design and construct the 73<sup>rd</sup> Iraqi National Guard Brigade Headquarters facility.

Eight modifications have been made to TO 0005:

- **Modification 01A** - (30 April 2005) increased the total TO cost by \$75,000 to \$6,638,690. The contractor modified the TO's Scope of Work to increase the stand-off distance from the perimeter wall by a minimum of 30 meters (m). In addition, the contractor received a six-day extension.
- **Modification 01** - (17 July 2005) increased the total TO cost by \$1,170,321 to \$7,809,011, and extended the completion date to 30 September 2005.
- **Modification 02** - (19 January 2006) increased the total TO cost by \$299,758 to \$8,108,769, and extended the completion date to 20 July 2006.
- **Modification 03** - (14 February 2006) increased the total TO cost by \$1,093,460 to \$9,202,229. The TO made changes in the general Scope of Work to be performed at the 73<sup>rd</sup> Iraqi National Guard Brigade Headquarters facility; it also added to the TO the additional Scope of Work for the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division<sup>3</sup> facility.
- **Modification P0004** - (13 September 2006) increased the total contract cost by \$159,636 to \$9,361,865. The TO modification made changes to the general Scope of Work, added to the Scope of Work, and made the

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<sup>3</sup> The 1<sup>st</sup> Battalion 4<sup>th</sup> Brigade 10<sup>th</sup> Iraqi Division project is also referred to in various documents as the 1/4 10<sup>th</sup> ID, formerly 1/4 10th ID, Camp Sparrowhawk, 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division Iraqi Army Headquarters Barracks, and 1/4 10<sup>th</sup> BN Garrison. This SIGIR report refers to the project as the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division.

contractor's Bill of Quantities for the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division part of the contract. The contractor received the Notice to Proceed with Modification P00004.

- **Modification P00005** - (14 November 2006) extended the period of performance to 12 March 2007 to allow for the changes to the Scope of Work made in Modification P00004.
- **Modification 07 and Modification 08** - made corrective administrative actions that incurred no additional cost to the government.

Although the objective of the task order was to design and construct the 73<sup>rd</sup> Iraqi National Guard Brigade Headquarters and to construct and renovate the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division facility, SIGIR inspected only the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division garrison. The 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division facilities used approximately \$1,253,096 of TO 0005's \$9,361,865.

### **Project Objective and Pre-Construction Description**

The overall objective of the project was to design and construct the 73<sup>rd</sup> Brigade Headquarters to accommodate 395 personnel. The contract also required the contractor to construct or renovate several buildings at the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division garrison.

The description of the facilities (pre-construction) is based on information obtained from the contract, GRD, and GRS headquarters' personnel and documentation at the Tallil Area Office.

### **Statement of Work**

The Statement of Work (SOW) for this project consisted of minimum design requirements and called for the construction or renovation of several buildings at the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division garrison. Specifically, the project components included:

#### *New Construction and Installation*

- construct a 390 square meter ( $m^2$ ) single-story battalion headquarters office building
- construct four 12 x 12.4 meter (m) toilet/bath buildings
- construct a 7m-wide aggregate surface roadway to connect the new construction with the existing roads
- construct three 4 x 2.5 x 2m septic tanks to connect waste pipes from the new battalion headquarters office building and the four toilet/bath buildings
- install one 600-kilovolt-ampere (kVa) transformer on existing pole
- install one 1,000-kVa generator on existing generator pad
- install two fuel storage tanks with a capacity of 50,000 liters
- complete low-voltage distribution connection

### Renovation

- 150-man troop barracks
  - repair holes
  - repaint interior walls and ceilings
- dining facility
  - install sinks and plumbing at entrance
  - repair holes in walls and ceilings
  - paint interior walls and ceilings
  - install three large kitchen sinks
- four new offices
  - demolish existing toilets/baths and inside plumbing
  - repair and repaint interior walls and ceilings
  - convert old bathrooms into new rooms
- plumbing
- electrical/mechanical

The requirements to complete this project provided sufficient detail for the construction and renovation of the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division garrison.

### **Current Project Design and Specifications**

The SOW required the contractor to construct the new battalion headquarters building and four new toilet/baths, using the original plans and specifications provided by the U.S. government. It also required the contractor to construct and renovate the facility in accordance with the technical specifications and the National Iraqi standards or the equivalent British/American standards, as applicable.

The project documentation provided by GRS did not include detailed construction drawings or design calculations for the project. SIGIR obtained and reviewed some Government Furnished Drawings (GFDs) provided to the contractor: the GFDs included a site location map (Figure 1), a rough site layout, general notes, septic tank details, and roadway cross-section details. A list of the GFDs provided to the contractor was included in the SOW.

The project documentation clearly identifies specific drawings that were to be supplied to the contractor for use during construction. The GFDs provided to SIGIR were determined to be adequate to outline the scope of the project for the contractor but were not adequate to construct the project. SIGIR requested additional contractor-furnished drawings from both GRD and GRS, but neither was able to locate the design drawings. The lack of available design drawings limited the ability of SIGIR to determine the adequacy of the project's design. However, the detailed list of specifications provided in the SOW did provide GRS with a limited basis for requiring the contractor to meet some minimum standards during the construction of this project.

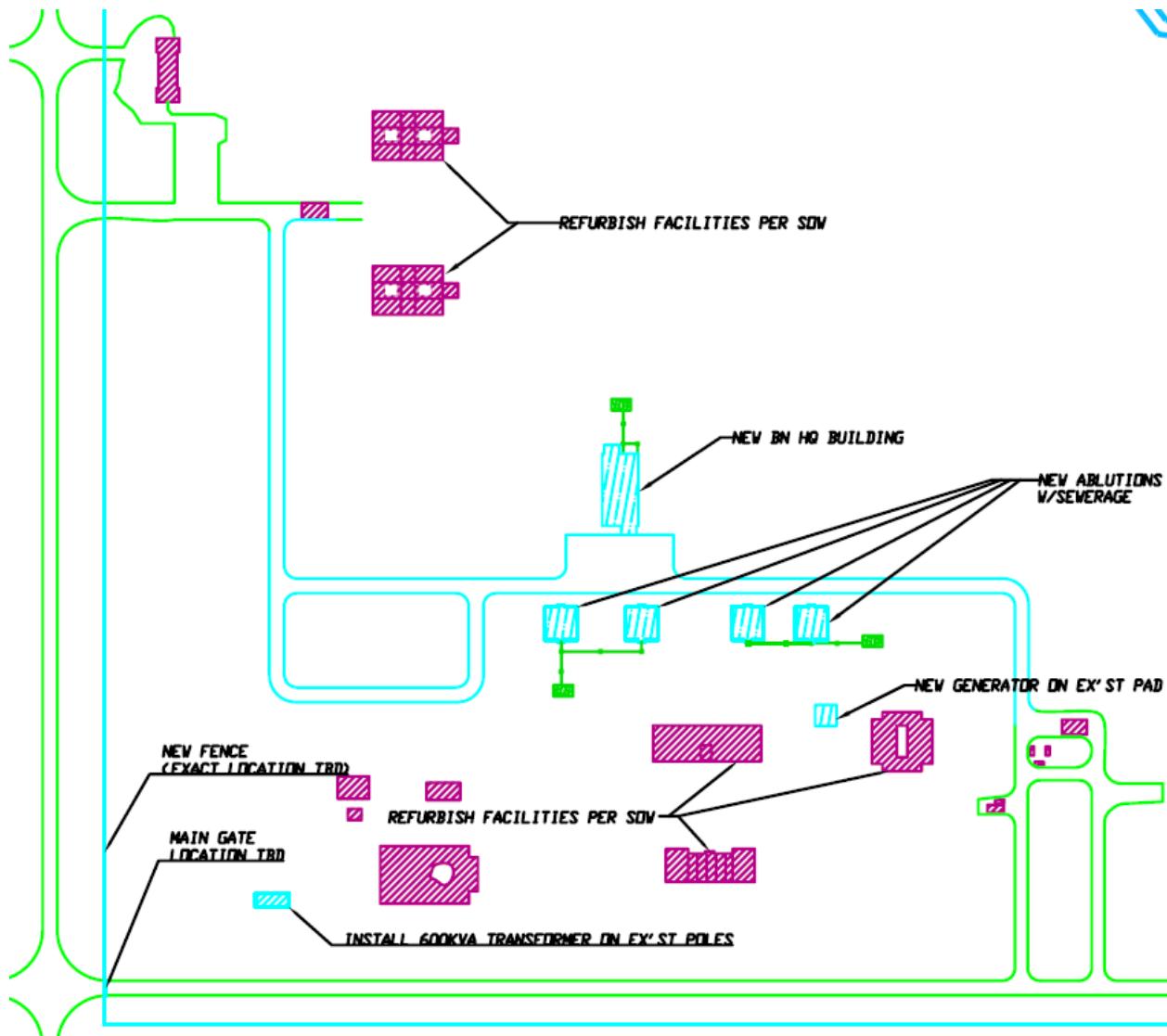


Figure 1. Government Furnished Design C-001 site plan showing the existing and proposed buildings

## Site Progress During Construction

The contractor was required to submit progress reports with visual pictures to verify progress and completion of work, and also a current log of contractor-identified deficiencies. The contractor did not provide construction reports or document quality control activities performed.

The GRS Missan Resident Office documented construction progress with limited quality assurance reports and photographs taken during site visits. SIGIR reviewed and subsequently relied on selected photographs to document examples of construction performance before the project was turned over to the Ministry of Defense on 8 January 2008.

Before the contractor began new construction at the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division project, the contractor cleared the area and outlined the future locations of the buildings (Site Photo 1). Site Photo 2 shows the construction of two latrine buildings.



**Site Photo 1. Future building location (Courtesy of GRS)**



**Site Photo 2. Latrine buildings (Courtesy of GRS)**

## Condition at Turnover

The final steps under the contract for the acceptance of the project by the U.S. government were the turnover of the installation to the Iraqis and closeout of the project TO. Also, the contracting officer representative was required to evaluate the contractor's performance on completion of the work.

According to GRS documentation, authorized GRS Missan Resident Office personnel conducted a final inspection on 9 February 2008; however, no final inspection report was written, and no photographs were taken to document the condition of the project. GRS closeout documentation concluded the following:

*"All work required by this contract has been accomplished in a satisfactory manner and is accepted without any noted deficiencies ...The Contractor...has completed all assigned work. All parties acknowledge that the work performed under the contractor meets the standards set forth in the contract scope of work."*

On 2 March 2008, the GRS Missan Resident Office Engineer signed this document certifying that all work was completed and that it met the standards of the contract's SOW.

Project file documentation indicates that on 8 January 2008, the GRS Missan Resident Office officially turned the project over to the Ministry of Defense. The contractor, GRS Missan Resident Office, and Ministry of Defense signed a Memorandum for Record, which stated:

*"This document certifies that all work has been inspected, and is accepted as being in accordance with the contract requirements. Construction at this facility is complete and no other work is to be performed as part of this contract unless noted below."*

The Memorandum for Record also noted that the contractor had turned over the project and the Ministry of Defense had received the following:

- operation and maintenance manuals
- as-built drawings
- property transfer

The Memorandum for Record noted that the contractor needed to complete the following items:

- connect cables with the existing grid
- repair ceramic tiles in the lavatories
- repair miscellaneous plumbing fixtures
- repaint steel doors
- repair electrical fixtures
- connect water pipes after connecting to grid

GRS documentation stated that the warranty period for this project expired on 7 January 2009.

# Site Assessment

On 8 January 2009, SIGIR performed an on-site assessment of the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division project, accompanied by the GRS Tallil Area Office representative and forward operating base personnel.

## Limitations of Assessment

Due to security conditions, the time allotted for the site visit was approximately 45 minutes. Consequently, SIGIR performed only an expedited assessment of the areas available; a complete review of all work completed was not possible. SIGIR inspected the following new construction and renovation areas of the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division project:

- battalion headquarters building
- water closets
- roads and security lighting
- electrical building and generators
- 150-man barracks and latrines
- dining facility
- laundry building
- water pump station
- medical building and maintenance building

## Battalion Headquarters Building

The contractor was to construct a 390 m<sup>2</sup> single-story office building with a large office space, private bedroom, bath, two large sleeping rooms, and sinks. The contractor was also to provide the electrical, mechanical, water, and sewer connections.

SIGIR first inspected the battalion headquarters building. Neither GRD nor GRS were able to provide design information, and the actual intended use of the facility could not be verified. At the time of the inspection, the building was sparsely occupied, and lunch was being prepared. The building appeared clean in the hallways, offices, and bedroom areas; however, the bathrooms and kitchen areas were not as well maintained.

The building construction used typical Iraqi techniques for brick or block walls with a mortar/plaster/paint finish. The building exterior had areas of sandstone cladding (covering of one material with another) and areas of mortar/plaster/paint finish. The flooring was mostly terrazzo tile and a few offices were carpeted. The electrical system appeared to be well constructed, but had poor-quality fixtures. SIGIR noted unsafe electrical connections (Site Photo 3). The heating, ventilation, and air-conditioning system (HVAC) consisted of individual split units, which on-site personnel reported to be working. SIGIR found one room in which the tile flooring had significantly settled. This appeared to be the only major defect in the building. The remainder of the building appeared to be well maintained; however, wall tiles behind the stove and preparation tables in the battalion headquarters kitchen area were missing (Site Photo 4).



**Site Photo 3. Unsafe electrical wiring**



**Site Photo 4. Damaged kitchen wall and tiles**

Because the contract did not provide for furnishings, GRS personnel were not sure if the furnishings were transferred from another facility or purchased by the Government of Iraq. The commander's office and the dining area furnishings appeared functional, but not very durable (Site Photo 5).



**Site Photo 5. Commander's dining area**

New Water Closets

The SOW stated that the contractor was to construct four 12 x 12.4 m latrine buildings. The facilities would contain 20 water closets, 20 showers, and 28 faucets for hand washing. Site Photo 6 shows the hand-washing area. The restrooms were functional; however, SIGIR observed cracks in the tile, missing and broken faucets, and a lack of housekeeping evident by the level of cleanliness observed.



**Site Photo 6. Hand-washing station**

### Roads and Security Lighting

The contractor was required to construct a 7 m-wide aggregate roadway to connect the new construction with the existing roads. SIGIR observed that the project had paved roadways between the buildings connecting to the main entrance (Site Photo 7). Also, the security lights were to be mounted on 4 m-high poles. During the site visit, SIGIR observed mounted security lights around the perimeter wall.



**Site Photo 7. Paved road**

### Electrical Building and Generator

The SOW required the contractor to install a pole-mounted, oil-immersed, 600-kVA transformer on an existing pole to replace the existing transformer. The contractor was to reuse the existing channels, 12-Kilovolt link fuse, 400-Volt cables and circuit breaker to support the new transformer.

Also, the contractor was required to install a new 1,000-kVa 3-phase diesel generator on the existing generator pad, along with a generator silencer, day tank, battery charger, internal circuit breaker, automatic transfer switch, and auto-start capability. In addition, two fuel storage tanks with a total capacity of 50,000 liters on a concrete foundation were required. The contractor was to connect the fuel tanks to the new generator, and gravity would power the fuel flow from the tanks without the use of pumps.

During the site assessment, SIGIR observed the electrical building, which contained several control panels and an automatic transfer switch (Site Photo 8). Two generators were in a separate covered shed that was secured with chain-link fencing (Site Photo 9). On-site personnel stated that the electrical grid was used and the automatic transfer switch was working properly. At the time of the site assessment, the generators were not operating. The generators appeared to have new filters, but the exterior was covered with excessive dust. SIGIR could not verify that any maintenance had been performed on the generators; however, on-site personnel stated that the generators were operational.



**Site Photo 8. Electrical control panels**



**Site Photo 9. Generators**

150-man Troop Barracks and Offices

The contractor was required to renovate the 150-man troop barracks by repairing holes and repainting the ceiling and interior walls. In addition, the contractor was to renovate offices by demolishing the existing plumbing (toilets and baths); repair and repaint the interior walls and ceiling; and convert the existing bathrooms into new rooms (offices, sleeping rooms, and storage areas).

The barracks and office buildings included multiple buildings with sleeping, hand-washing, or storage areas. Barracks building construction used typical Iraqi techniques for brick/block walls with mortar/plaster/paint or tile finish. Also, the exterior consists of areas with sandstone cladding and mortar/plaster/paint finish. The barracks and office buildings had terrazzo tile flooring, and the ceiling was painted concrete with fluorescent lighting. The electrical systems appeared to be well constructed, but poor-quality fixtures were used. The HVAC system consisted of individual split units, which on-site Iraqi personnel stated were working. The sleeping rooms consisted of metal bunks or simple floor mats (Site Photo 10). The faucet fixture quality was poor, and some of the faucets were removed. One of the storage areas was converted into a convenience store to serve the soldiers (Site Photo 11).



**Site Photo 10. Sleeping room**



**Site Photo 11. Room converted into convenience store**

#### Dining Facility

The contractor was required to renovate the dining facility by installing new hand-washing sinks at the entrance, repairing holes in the interior walls and ceiling, repainting the ceiling and interior walls, and installing three large kitchen sinks. The main dining

facility building was of typical Iraqi construction, with a large tile interior finish. The dining facility comprised a seating and serving area and was well maintained.

A separate building was used for preparing and cooking the food. This building was similar in construction, but was not well maintained. For example, wall and floor tiles were missing or damaged, and food, dirt, and debris covered the floor and walls (Site Photo 12). Although the food preparation area was designed for electrical food preparation and heating equipment, no electrical equipment was present. Instead, meals were cooked using portable gas cylinders with open-flame grates. The building appeared adequately constructed.



**Site Photo 12. Food preparation and cooking area**

#### Laundry Facility

The laundry facility was constructed using the typical brick/block construction with mortar/plaster exterior. The interior was finished with large wall and floor tiles (Site Photo 13). SIGIR found the laundry facility to be well-maintained and in operation at the time of the assessment. The laundry facility was equipped with several washers and dryers, with several electrical and plumbing hookups for additional machines. The electrical and HVAC systems appeared adequately installed and operational.



**Site Photo 13. Laundry facility interior**

Water Pump Station

SIGIR inspected the water pump station, which consisted of a pump house, a three-pump package booster system, and an above-ground concrete water-storage tank. The pump house was a typical brick/block building with mortar/plaster finish. The pressure booster pump was a standard three-pump package system. If sized properly, the widely used system should provide sufficient pressure for the complex. One of the three pumps was missing at the time of the inspection—reportedly sent off to be repaired. The standard booster pump system allows for uninterrupted operation in case of pump failure. The pumps are sized so that only one or two are needed to provide the required flow and pressure. This allows one pump to be removed for repair or replacement.

Although the water storage tank interior could not be inspected, the exterior showed signs of damage. According to on-site personnel, the damage was caused by a rocket that exploded near the tank. The damage appears to be limited to superficial concrete damage; however, the paint showed stains from leakage. The tank was repaired using mortar. At the time of the assessment, no leaks were detected in the tank.

Overall, the water system appeared to be functioning properly and was adequately maintained.

Medical and Maintenance Buildings

The medical building was constructed using bricks/blocks with mortar/plaster finish. The construction and maintenance of the building was adequate. The interior consisted of a few rooms and was clean but not sterile. At the time of the site visit, no one was being treated; however, medical supplies were readily available (Site Photo 14). SIGIR determined that the medical building was equipped to provide minor medical care to personnel, including dispensing medical supplies, preventing infectious disease, and disbursing pharmaceuticals. SIGIR observed an Iraqi medical technician on site and available.

At the time of the assessment, vehicles were not being serviced (Site Photo 15). However, on-site personnel stated that the maintenance building was functioning, and SIGIR observed that the building was adequately maintained.



**Site Photo 14. Interior medical room with supplies**



**Site Photo 15. Equipment maintenance building**

#### General Observations

According to GRS documentation, the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division facility has been operational for approximately 18 months, and on-site personnel did not report any problems with the facility.

Personnel appeared to be taking the initiative to maintain the facility. The facility was generally clean and well organized, and personnel were performing some minor maintenance functions, including cleaning and repair. Also, Iraqi personnel had planted flowers and were doing landscape maintenance.

## Conclusions

The Statement of Work required the contractor to construct the new battalion headquarters building and four new toilet/baths, using the original plans and specifications provided by the U.S. government. SIGIR reviewed available Government Furnished Drawings and found that although they were adequate to outline the scope of the project for the contractor, they were not adequately detailed to properly construct the facility. SIGIR requested detailed construction drawings or design calculations for the project, but neither Gulf Region Division (GRD) nor Gulf Region South (GRS) could produce the design drawings or calculations. Due to the lack of available design drawings and calculations, SIGIR was unable to determine if the project was adequately designed.

According to GRS documentation,<sup>4</sup> GRS Missan Resident Office personnel conducted a final inspection on 9 February 2008; however, no final inspection report was written, and no photographs were taken to document the condition of the project. GRS closeout documentation concluded the following:

*"All work required by this contract has been accomplished in a satisfactory manner and is accepted without any noted deficiencies ...The Contractor...has completed all assigned work. All parties acknowledge that the work performed under the contractor meets the standards set forth in the contract scope of work."*

On 2 March 2008, the GRS Missan Resident Office Engineer signed this document certifying that all work was complete and that it met the standards of the contract's Statement of Work.

Surprisingly, project file documentation indicates that on 8 January 2008, the GRS Missan Resident Office officially turned the project over to the Ministry of Defense. The contractor, GRS Missan Resident Office, and Ministry of Defense signed a Memorandum for Record, which stated:

*"This document certifies that all work has been inspected, and is accepted as being in accordance with the contract requirements. Construction at this facility is complete and no other work is to be performed as part of this contract unless noted below."*

The notes to the Memorandum for Record stated that the contractor was required to complete these items:

- connect cables with the existing grid
- repair ceramic tiles in the lavatories
- repair miscellaneous plumbing fixtures
- repaint steel doors
- repair electrical fixtures
- connect water pipes after connecting to grid

The Memorandum for Record stated that all corrections would be completed in approximately 14 days.

On 8 January 2009, SIGIR conducted an on-site assessment and found that the buildings were occupied and the facilities were being used. Due to security conditions, SIGIR performed only an expedited 45-minute on-site assessment.

SIGIR confirmed that the contractor had corrected the outstanding deficiencies. SIGIR did not observe any signs of structural failure or distress; the floors appeared even and level, with no apparent signs of settlement or displacement. However, the flooring tile in the entrance room of the battalion headquarters building had significantly settled and showed signs of cracking; this appeared to be the only major defect in the building. Although the electrical system appeared to be well-constructed, the fixtures were of poor quality, and unsafe after-installation connections had been made to electrical wiring. Also, the ceramic tiles in the kitchen and lavatories showed evidence of damage, and some of the faucets were missing.

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<sup>4</sup> GRS is one of three districts under the U. S. Army Corps of Engineers GRD. GRD and its three districts provide construction management services and help the Government of Iraq maintain its construction, operation, and maintenance program of essential services and national infrastructure.

SIGIR found that personnel from the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division were taking initiative to maintain the facility by performing routine maintenance and cleaning.

SIGIR concluded that, aside from minor construction defects, safety concerns, and damage from improper use, the construction was adequate and was turned over to the Government of Iraq in a sustainable condition. At the time of the site visit, GRS documentation showed that the project had been operational for approximately 18 months.

## **Recommendation**

SIGIR recommends that the Gulf Region Division locate the detailed construction drawings and design calculations for the new battalion headquarters building and four new toilets and baths and maintain them in the project file records.

## **Management Comments**

SIGIR received comments on the draft of this report from the Gulf Region Division of the U.S. Army Corps of Engineers concurring with the recommendation and explaining that GRS had documentation confirming that as-built drawings had been provided to the Government of Iraq at turnover of the project on 8 January 2008. Subsequent discussions with GRD disclosed that in September 2008, 227 boxes of records from GRS were delivered to the Transatlantic Program Center of the U.S. Army Corps of Engineers in Winchester, Virginia. The 227 boxes included 19 boxes of oversized drawings. The Transatlantic Program Center is checking those boxes for drawings.

## **Evaluation of Management Comments**

SIGIR appreciates the concurrence by the U.S. Army Corps of Engineers with the draft report's recommendations. Their comments addressed our recommendations and provided additional clarifying information for this final report. As a result, no additional comments are required.

## **Appendix A. Scope and Methodology**

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SIGIR performed this project assessment from December 2008 through June 2009 in accordance with the Quality Standards for Inspections issued by the Council of the Inspectors General on Integrity and Efficiency. The assessment team comprised an engineer/inspector and two auditors/inspectors.

In performing this Project Assessment SIGIR:

- reviewed contract documentation, including Contract W916QW-05-D-0012, W916QW-05-D-0012 Task Order 0005, Modification 1A, Modification 01, Modification 02, Modification 03, Modification P00004, Modification P00005, Modification 07, and Modification 08; quality control and assurance reports; and project closeout documentation;
- reviewed the design package (plans) and photographs documenting construction progress;
- interviewed Gulf Region South Tallil Area Office and Gary Owen Forward Operating Base personnel; and
- conducted an on-site assessment on 8 January 2009 and documented results at the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division project in Missan, Iraq

**Scope Limitation.** Due to the security conditions, SIGIR performed only an expedited assessment. The time allotted for the 4<sup>th</sup> Brigade 10<sup>th</sup> Infantry Division was approximately 45 minutes; therefore, a complete review of all work completed was not possible.

## **Appendix B. Acronyms**

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GFD	Government Furnished Documents
GRD	Gulf Region Division
GRS	Gulf Region South
HVAC	heating, ventilation, and air conditioning
kVa	kilovolt ampere
m	meter
$m^2$	square meters
SIGIR	Special Inspector General for Iraq Reconstruction
SOW	Statement of Work
TO	Task Order

## **Appendix C. GRD Comments on Draft Report**



REPLY TO  
ATTENTION OF

**DEPARTMENT OF THE ARMY**  
**U.S. ARMY CORPS OF ENGINEERS**  
**GULF REGION DIVISION**  
**BAGHDAD, IRAQ**  
**APO AE 09348**

CEGRD-CG

14 July 2009

MEMORANDUM FOR Special Inspector General for Iraq Reconstruction, US Embassy Annex II, Room 1013, APO AE 09316

SUBJECT: SIGIR Draft Project Assessment Report – 4th Brigade, 10th Infantry Division Iraqi Army Headquarters Barracks Missan Province, Iraq (PA-08-164)

1. The Gulf Region Division reviewed the subject draft report and concurs with the recommendation. Our detailed response is included in the enclosure.
2. Thank you for the opportunity to review the draft report and provide our written comments for incorporation in the final report.
3. If you have any questions, please contact Mr. Robert Donner at (540) 665-5022 or via email [Robert.L.Donner@usace.army.mil](mailto:Robert.L.Donner@usace.army.mil).

Encl  
as

*Michael R. Eyre*  
MICHAEL R. EYRE  
Major General, USA  
Commanding

## **Appendix C. GRD Comments on Draft Report**

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**GULF REGION DIVISION  
COMMAND REPLY**  
to  
**SIGIR Draft Project Assessment Report – 4<sup>th</sup> Brigade, 10<sup>th</sup> Infantry Division  
Iraqi Army Headquarters Barracks Missan Province, Iraq**  
**SIGIR Report Number 08-164**  
**(Project Numbers PA-08- 164)**

**Recommendation 1.** SIGIR recommends that the Gulf Region Division locate the detailed construction drawings and design calculations for the new battalion headquarters building and four new toilets and baths and maintain them in the project file records.

**GRD Response.** Concur. Gulf Region South (GRS) provided the final as built drawings to the Government of Iraq (GoI) when it turned over the training area complex on 08 Jan 08. GRS did not keep a copy of the as built drawings for its project files.

Enclosure

## **Appendix D. Report Distribution**

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### **Department of State**

Secretary of State

    Senior Advisor to the Secretary and Coordinator for Iraq

    Director of U.S. Foreign Assistance/Administrator, U.S. Agency for International Development

        Director, Office of Iraq Reconstruction

    Assistant Secretary for Resource Management/Chief Financial Officer,  
        Bureau of Resource Management

U.S. Ambassador to Iraq

    Director, Iraq Transition Assistance Office

    Mission Director-Iraq, U.S. Agency for International Development

Inspector General, Department of State

### **Department of Defense**

Secretary of Defense

Deputy Secretary of Defense

Under Secretary of Defense (Comptroller)/Chief Financial Officer

    Deputy Chief Financial Officer

    Deputy Comptroller (Program/Budget)

Deputy Assistant Secretary of Defense-Middle East, Office of Policy/International Security Affairs

Inspector General, Department of Defense

Director, Defense Contract Audit Agency

Director, Defense Finance and Accounting Service

Director, Defense Contract Management Agency

### **Department of the Army**

Assistant Secretary of the Army for Acquisition, Logistics, and Technology

    Principal Deputy to the Assistant Secretary of the Army for Acquisition, Logistics, and Technology

    Deputy Assistant Secretary of the Army (Policy and Procurement)

    Commanding General, Joint Contracting Command-Iraq/Afghanistan

Assistant Secretary of the Army for Financial Management and Comptroller

    Chief of Engineers and Commander, U.S. Army Corps of Engineers

        Commanding General, Gulf Region Division

        Chief Financial Officer, U.S. Army Corps of Engineers

Auditor General of the Army

### **U.S. Central Command**

Commanding General, Multi-National Force-Iraq

    Commanding General, Multi-National Corps-Iraq

    Commanding General, Multi-National Security Transition Command-Iraq

    Commander, Joint Area Support Group-Central

## **Other Federal Government Organizations**

Director, Office of Management and Budget  
Comptroller General of the United States  
Inspector General, Department of the Treasury  
Inspector General, Department of Commerce  
Inspector General, Department of Health and Human Services  
Inspector General, U.S. Agency for International Development  
President, Overseas Private Investment Corporation  
President, U.S. Institute of Peace

## **Congressional Committees**

### **U.S. Senate**

Senate Committee on Appropriations  
Senate Committee on Armed Services  
Senate Committee on Foreign Relations  
Senate Committee on Homeland Security and Governmental Affairs

### **U.S. House of Representatives**

House Committee on Appropriations  
House Committee on Armed Services  
House Committee on Oversight and Government Reform  
House Committee on Foreign Affairs

## **Appendix E. Project Assessment Team Members**

The Office of the Assistant Inspector General for Inspections, Office of the Special Inspector General for Iraq Reconstruction, prepared this report. The principal staff members who contributed to the report were:

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